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ABSTRACT

Defining the purpose of evaluation as "to provide data for decision making," a methodolcgy for educational evaluation was developed. The criteria of efficiency, completeness and focus (on the decision maker's priorities) were used. The elements of the methodology are: (1) negotiation of the contract; (2) design of the evaluation; and (3) implementation of the evaluation design--measurement, reporting the data, evaluation of the evaluation, redesign of evaluation. Among the advantages of this methodology are that it suggests a practical approach to developing additional methodology and to revising existing methodology that does not work and that it provides criteria for evaluating its own effectiveness. (KM)

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The Fortune/Hutchinson Evaluation Methodology: A Decision Oriented Approach

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A paper to be presented at "Methodologies Under Development," a Symposium of the American Educational Research Association, New Orleans, February, 1973.

The purpose of this paper is twofold: (1) to provide an overview of the development of the Fortune/Hutchinson Evaluation Methodology and (2) to provide an overview of the current status of that methodology. Perhaps the best starting point is to address the question, "Why was this methodology developed"? Methodology was built in order to fulfill the specific purpose of providing data for decision making.

Administrators, teachers, and other decision makers need (1) data for ongoing decision making, (2) data which they can really use and (3) evaluation procedures which do not interfere with their accomplishing what they want to accomplish.

Evaluators need to meet administrators' teachers' and other decision makers' needs for data for decision making. They need methodology that can be applied to people's needs for data that they can actually use in their decision making processes. Evaluators also need methodology which avoids interfering with what those decision makers want to accomplish.

If evaluation methodologists are concerned with administrators' and evaluators' needs for useful data for decision making, they need to know what the criteria are for the accomplishment of that purpose and what operations will accomplish that purpose.

The Fortune/Hutchinson Evaluation Methodology was developed using and reflecting methodological thinking, a logically deductive and empirical process for arriving at a complete, fully operational and systematic set of rules and procedures for accomplishing a defineable purpose.

Purposes of Evaluation

In order for any methodology to be developed, it is first necessary to have a purpose. The concept of "purpose" is the key to methodological development. Second, it is necessary to realize that different purposes demand different methodologies. That is, for example, if public relations

is the purpose, then a public relations methodology should be used. If the purpose is the production of universally generalizable knowledge, then a research methodology should be used. If recommending decisions to decision makers is the purpose, then program design or systems engineering methodology should be used. The purpose of the Fortune/Hutchinson Methodology is to provide data for decision making, and this purpose is distinguished from other purposes.

Once a clear purpose has been established, it is necessary to examine the implications of that purpose. One part of this process is to "test" the purpose against several criteria: desireability, operationalizability, and practicality. Operationalization of the purpose can be accomplished by the application of the Operationalization of Fuzzy Concepts methodology, which results in an operational specification of the purpose (Hutchinson and Benedict, 1970; Jones, 1971). The practicality of such a purpose, and of a methodology to fulfill that purpose is both a logical problem and a field test problem. Finally, the desireability critieria was easily met by a simple examination of the current status of evaluation in education.

Current State of the Art

The 1960's saw the topic of educational evaluation develop from the rather simplistic and narrow notion of evaluation as testing to a much broader and larger content area within the still broader field of educational research. With the appearance in 1963 of Lee J. Cronbach's article, expanding the concept of evaluation, and even more so with the appearance in 1967 of the AERA Monograph Series on Curriculum Evaluation (Tyler, 1967), educational researchers have become increasingly and suddenly aware of the great void in educational evaluation methodology. This void is further brought home to the researchers by the increasing demands and requests that come across their desks from the field for evaluation skills in dealing with

numerous funded projects, e.g. Title I, Title III and so on.

At first, this void was merely elaborated upon within a very limited audience but with the continuing work of Tyler (1967), Stake (1967, 1969), and Stufflebeam (1967, 1969); the appearance of CIRCE at Illinois, the Ohio State Evaluation Center and the UCLA Evaluation Center among others; and most recently with the joint efforts of Phi Delta Kappa and AERA in the form of one of the most definitive works to date on the subject (Stufflebeam, et.al., 1971), this audience has grown larger and larger. But, and perhaps more important, the shortcomings of the field have become more and more obvious. Despite the theoretical works of the above named group of outstanding educationists there still exist few evaluation methodologists or methodologies.

In fact, we can sum up the state of the art as follows:

(1) The area of educational evaluation theory and conceptualization is sadly lacking.

(2) Now more than ever there is a need for comprehensive evaluation procedures to be developed.

(3) To date, the development of procedures has not been done at a very rapid rate.

The Need for Methodological Research in Educational Evaluation

Even a brief examination of the current state of educational evaluation methodologies makes it obvious that not only are there many gaps between theory and practice, but there are many gaps in the theories themselves. (Worthen, in a paper presented at this convention last year (1972) gave an excellent documentation and critique of the many, many inadequacies existing in current evaluation methodology.) Even such prestigous "evaluation theorists" as Scriven (1967), Stufflebeam (1969, 1971), Stake (1967, 1969) and Glass (1969) have documented in their various writings the great need for methodological research in educational evaluation today. This need becomes even more obvious when one begins to examine the inadequacies of the various models of evaluation put forward by these and other writers, e.g. CIPP,

EPIC, EPIE, Provus Discrepency Model (Provus, 1969), and so on.

The Fortune/Hutchinson Methodology of Educational Evaluation

In answer to this very obvious and very immediate need of educational evaluation, namely the need for methodological development, Fortune, Hutchinson, and others set about doing such development. Beginning with a more comprehensive and more utilitarian definition of the purpose of evaulation, namely to provide data for decision making, they have proceeded to develop prescriptive, not merely descriptive, procedures for educational evaluation. In fact, they contend that the only legitimate function of this evaluation methodology is to provide data to decision makers for their decision making purposes. (It should be pointed out that they are not the first to use this concept in the field. The reader is referred to the 1963 article by Cronbach and the later work (1969) of Cronbach and Suppes, as well as the 1969 article of Stufflebeam's.) Fortune and Hutchinson have, however, considered the concept to a further degree, and better incorporate the concept in their methodology, than do others who seem to verbalize it more than build upon it, or even really seriously consider it (witness for example the recently published PDK-AERA monograph, Stufflebeam, et.al., 1971).

Other implications of the purpose to provide data for decision making arose, implications overlooked by other "decision-oriented" models (Hutchinson, 1972). Three "user" criteria emerged for evaluation practice: (1) efficiency: An evaluation is efficient to the extent that it provides only that data which a decision maker actually uses; (2) completeness: An evaluation is complete to the extent that it provides all the data needed by a decision maker; and (3) focus: An evaluation is focused to the extent it provides all the data for the decision makers highest priority needs.

These three "user" criteria have counterparts on the evaluation methodology level, i.e. "evaluator" criteria: (1) efficiency for the evaluator implies a continuing high degree of contact with the decision maker and

continuing review by the decision maker; (2) completeness implies that the methodology is tested for completeness as to the decision makers' needs on a continuing basis; and (3) focus implies that methodology use decision maker priorities at every stage, rather than the evaluator's or someone else's.

This level of analysis of the implications of the purpose to provide data for decision making yields yet another level of criteria: that of the methodologists, or of methodological development. To reiterate an earlier point, the purpose is the key to methodological development. Evaluators need procedures whose effectiveness can be measured and which can be revised if they do not work. Field testing of pieces of the methodology should occur under simple, available conditions where identification of what doesn't work can occur, rather than in giant, complex studies, where confounding results abound. And one final implication is that methodology for evaluation will probably never be complete, so the methodologists work will never end.

The Fortune/Hutchinson Evaluation Methodology: a Methodology built upon implications of the purpose: to provide data for decision making.

Following an examination and delineation of the implications of such a purpose, the methodologists then proceeded with the development of the actual elements of the methodology. This section of the paper is an overview of the major conceptual elements of the evaluation methodology, with some discussion of the purpose of each element. (Space does not allow a complete delineation of prescriptive steps here. However, these will be made available as a handout.)

1.0 Negotiation of the contract.

- 1.1 Explication of the evaluation methodology and determination of whether it satisfies the needs of the temporary decision maker.

This step provides for identification of the temporary decision maker (the person controlling the evaluation resources); a statement of the purpose and an overview of the methodology; and the securement of a committment from the temporary decision maker that this is what he wants.

1.2 Identification of the enterprise.

The enterprise is defined as that which is to be evaluated, or that area in which decisions are to be made on the basis of information to be gathered. Here the enterprise is delineated, including its purpose, scope, etc.

1.3 Elimination of misunderstanding.

This is done to insure a mutual understanding between evaluator and decision maker and to prevent the evaluation from being erroneously designed.

1.4 Identification of resources for evaluation.

The temporary decision maker identifies those resources of the enterprise available to devote to the evaluation. Resources are of two major kinds: those to be divided for evaluation among the various decision makers of the enterprise and those to be divided among the various evaluation tasks for each decision maker. The scope of the evaluation is equal to the amount of resources available.

1.5 Identification of decision maker(s).

All enterprise's have more than a single decision maker (unless the enterprise is defined as a single individual). A decision maker is defined as a person for whose decision making needs evaluative data are to be gathered. It is necessary and important to define and identify those decision makers, as well as their priority order, for each is a potential user of data and each potentially needs different data. The evaluator has to know which decision maker(s) he will have to operate with and in which order.

1.6 Preparation of the contract.

The actual agreement on the scope of the evaluation is committed to writing here before the evaluation proceeds.

2.0 Design of the evaluation

2.1 Identification of goals for each decision maker.

The evaluator elicits the goals or intents of each decision maker for whom information will be gathered. These are tested for completeness and systematically ordered as a guide for proceeding with the evaluation. The purpose is to arrive at as complete an approximation as possible of goals/intents of each decision maker as specified in the contract.

2.2 Identification of parts of the enterprise for each decision maker.

This is a systems analysis for evaluation from the perspective of each of the decision makers for whom data is to be provided. Decision makers need data not only (or even usually) about their global enterprise but rather about specific parts or aspects of that enterprise. For data to be provided about parts rather than, or in addition to, the whole, a parts process has to be employed and it is done here.

2.3 Matching of goals to parts for each decision maker.

The goals arrived at above (2.1) are matched to the appropriate parts (arrived at in 2.2) in order that it be known which goals belong to which part or are held for each part. This is done to provide a more efficient evaluation design and to provide more useful data for decision making.

2.4 Operationalization of goals for each decision maker.

Goals/intents are usually "fuzzy", i.e. global, vague, general. This process systematically takes each goal and has the decision maker break it down into its directly observable and measureable components. This is done by a technique called the Operationalization of Fuzzy Concept. These components are tested for completeness and then prioritized.

2.5 Development of observational techniques.

Observational techniques are designed for the first priority operationalized components of each decision maker's goals. Ideal criteria for observational techniques are that they be used directly, under natural conditions, unobtrusively. If available techniques do not fit these criteria, unique techniques are designed for the component at hand. These techniques are matched with resources to insure that they are not too costly vis á vis evaluation resources. (When this is accomplished, the process is recycled back for the next priority operationalized components.)

3.0 Implementation of the evaluation design.

3.1 Implementation of measurement.

Data recording devices are developed for the observational techniques developed (2.5). Sampling is done, if appropriate, both of observational techniques and of the target population. Then the actual observations are carried out. Data is reported (cf. below) and plans to repeat the observation are designed as appropriate. (Recycle back for the next priority operationalized components as resources permit.)

3.2 Reporting the data.

Data is reported (on the results of 3.1) to the appropriate decision makers from the list of decision makers and in an efficient and appropriate manner, i.e. relating back to the observational techniques used, the operationalized component(s) they are used for, for which goal and which part, and for which priority decision maker.

3.3 Evaluation of the evaluation.

The evaluator determines the extent to which decisions were made on the data provided. He determines the amount of data provided which was used in the decision making process. He determines if the data was provided in time for the needs of the decision maker and if the decision maker had more pressing needs for which data were not provided.

3.4 Redesign of evaluation.

Redesign is systematically planned for the whole process and for each sub-process as determined by, or asked for by, either the decision maker(s), the temporary decision maker or the evaluator. It is first determined if redesign is necessary and then for which

parts of the evaluation it is to be done. The redesigned part(s) would then be tested and adopted or redesigned as appropriate.

These various elements are in various stages of development. The entire methodology has been field tested at levels varying from a single integrated day, K-1 program, up through evaluation of school wide programs. Various elements, e.g. the goals process, are currently being further developed and field tested. The OFC process has not only been field tested formally, but has had an substantial amount of dissemination and implementation.

Some Implications which the Fortune/Hutchinson Evaluation Methodology has for methodological development, for evaluation practive and for user of evaluation.

The existence and further development of F/H has some significant implications for methodological development, not only in evaluation but in other areas of applications in education and the social sciences. The development of F/H to this point in time suggests a feasible and practical approach to developing additional methodology and to revising existing methodology that doesn't work. There exists a methodological modification process which is analagous to theory modification in research. Gaps in extant methodologies, as well as methodologies under development can be identified and filled. Finally, this process provides the basis for both decision oriented and conclusion oriented research.

F/H has important implications for evaluation practice also: First, it provides criteria for evaluating its own effectiveness. It provides a practitioner with step-by-step specifications, not just admonitions and general rules of good procedures. An evaluator can have a clearly defined sphere of activity, which means that he can explain to persons who ask him to do something else, i.e. to accomplish another purpose, why something else is not done and is not appropriate. In using this methodology,

decision maker cooperation and commitment is essential. This implies that an evaluator will be spending more time working with people and less time working with data. Finally, with a methodology, an evaluator can provide his clients with greater assurance that he is neutral, that he is not giving prejudiced data and that he will not be making the enterprise's decisions.

The existence and development of F/H has implications for users of evaluation also. Methodology of this nature retains for a user his ethical and legal authority for making decisions. Methodology of this nature assures a user the data will be as useful to him as possible given his cooperation, the evaluator's skill and the appropriate resources. The methodology assures that data which the decision maker does not need or will not use, will not be collected. This methodology provides criteria by which alternative evaluation procedures can be judged.

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